CALS TEST NETWORK

AFCTN Test Report 93-063

AFCTB-ID 93-018

Technical Publication Transfer

Using:

Northrop Corporation's Data

MIL-D-28000A (IGES)
MIL-M-28001A (SGML)
MIL-R-28002A (Raster)
MIL-D-28003 (CGM)

Quick Short Test Report

7 March 1993

Prepared for

Electronic Systems Center

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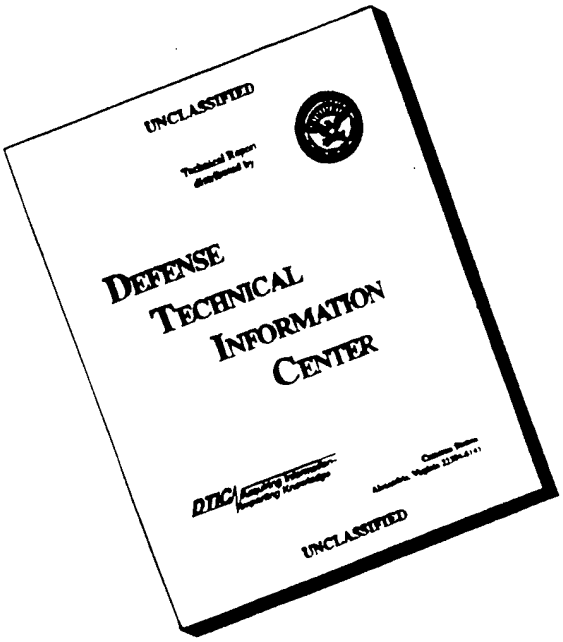

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07 March 1993

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Contents

1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. The include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) tat briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze Northrop Corporation's interpretation and use of the CALS standards in transferring technical publication data. Northrop used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.

2. Test Parameters

Test Plan: AFCTB 93-018

Date of Evaluation: 7 March 1993

Evaluators:
George Elwood
Air Force CALS Test Bed
DET 2 HQ ESC/ENCP
Suite 300
4027 Colonel Glenn Hwy
Dayton OH 45431-1672

Data Originator:
John P. Kent
Northrop Corporation
B-2 Division
L591/GK
8900 East Washington Blvd
Pico Rivera CA 90660
(310) 948-0624

Data Description:
Technical Manual Test
3 Document Declaration files
3 Document Type Definitions (DTD)
4 Initial Graphics Exchange Specifications (IGES) files
3 Text files
1 Raster file
5 Computer Graphics Metafile (CGM) files

Data Source System:

IGES

HARDWARE
Unknown

SOFTWARE
Unknown

Text/Standard Generalized Markup Language (SGML)

HARDWARE

Unknown

SOFTWARE

Unknown

Raster

HARDWARE

Unknown

SOFTWARE

Unknown

CGM

HARDWARE

Unknown

SOFTWARE

Unknown

Evaluation Tools Used:

MIL-STD-1840A (TAPE)

SUN 3/280

AFCTN *Tapetool v1.2.8 UNIX*
Texas Instruments (TI) *Tapetool v1.0.1*

MIL-D-28000 (IGES)

Sun SparcStation 2

ArborText *iges2draw*
IGES Data Analysis (IDA) *Parser/Verifier v92*
IDA *IGESView v3.05*
International TecheGroup Incorporated (ITI) *IGESWorks v1.3*

MIL-M-28001 (SGML)

Cheetah Gold 486

Datalogics *ParserStation v3.36*
Exoterica *XGMLNormalizer v1.2e3.2*
Public Domain *sgmls*

MIL-R-28002 (Raster)

SUN SparcStation 2
- ArborText *g42tiff*
- AFCTN *validg4*
- AFCTN *calstb.475*
- IDA *IGESView v3.0*
- Island Graphics *IslandPaint v3.0*

Cheetah
- Inset Systems *HiJaak v2.1*
- Inset Systems *HiJaak Window v1.0*
- Software Publishing Corporation (SPC) *Harvard Graphics v3.0*
- Corel *Ventura Publisher*

MIL-D-28003 (CGM)

SUN SparcStation 2
- ArborText *cgm2draw*
- Island Graphics *IslandDraw v3.0*

Cheetah Gold 486
- Advance Technology Center (ATC) *MetaView R 1.12*
- ATC *MetaCheck R 2.05*
- SPC *Harvard Graphics 3.05*
- Inset Systems *HiJaak v2.1*
- Inset Systems *HiJaak v1.0 Windows*
- Micrografx *Designer 3.1*
- Micrografx *Charisma 2.1*
- Corel *Ventura Publisher*

Standards Tested:

MIL-STD-1840A
MIL-D-28000A
MIL-M-28001A
MIL-R-28002A
MIL-D-28003

3. 1840A Analysis

3.1 External Packaging

The tape arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a box in accordance with ASTM D 3951. The exterior of the box was marked with the magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3.

The tape were enclosed in a barrier bag as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the label indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Enclosed in the box was a packing list showing all files recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tape was run through the AFCTB *Tapetool v1.2.8* utility. No errors were encountered while evaluating the contents of the tape labels.

The tape was also evaluated using TI's version of *Tapetool*. No errors were reported from this program.

3.2.2 Declaration and Header Fields

No errors were found in the Document Declaration file or data file headers.

4. IGES Analysis

This tape contained four IGES files. These files were evaluated using IDA's *Parser* and *Verifier* set for CALS Class I. This software reported no errors in the files.

The AFCTB has several tools for viewing IGES files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of meeting CALS standards. All operations were performed using the default settings.

The four files were converted using ArborText's *iges2draw* utility with no reported errors. When the resulting files were imported into Island Graphics' *IslandDraw*, file Q304 displayed the right edge with nothing printing except a few lines. File Q305 displayed a heavy line on the right side of the screen and printed nothing. Files Q306 and Q307 displayed and printed without a problem.

The four files were converted using the AUTODESK's *IGES Translator 5.1* with no reported problems. The resulting files were displayed using AUTODESK's *AutoCAD R12*. The images appear to be complete.

The four files were imported into IDA's *IGESView* without a reported problem. The files displayed and printed without a problem. All files appear to be complete.

the four files were imported into ITI's *IGESWorks* with no reported errors. All files displayed and printed with complete images.

The IGES files meet the CALS MIL-D-28000A specification.

5. SGML Analysis

The tape contained three DTDs and three Text files. The DTDs were the same except for the graphic references. To save time, all of the graphic references were placed in one DTD and this file was used during all operations.

The Text files on this tape were short and only called the graphics files.

The DTD was parsed using Exotercia's *XGMLNormalizer* with no reported errors. When the DTD was use to parse all three Text files the same errors were reported.

```
C:\XGML\XGMLNORM.EXE --
Error on line 1 in file i:\9318\t101.txt:
A REQUIRED attribute is missing.
For start tag 'DOC': For REQUIRED CDATA attribute 'FOSICITE'.
```

The DTD was parsed using the Datalogics' *ParseStation* software with no reported errors. This software did you non used elements. See the appendix for the log file. When the DTD was used to parse the text files, the missing tag was also reported. See the Appendix for the log.

The DTD was parsed using the Public Domain *sgmls* parser. This parser reported two errors in the DTD. When the DTD and Text files were parsed together several error messages were generated. The boardno errors are not errors because they were commented out of the DTD before parsing. This parser also reported the missing tag.

The DTD and Text files do not meet the CALS MIL-D-28001A specification.

6. Raster Analysis

The tape contained one Raster Type II file. The AFCTB currently does not have the ability to evaluate Type II Raster files. The file will be sent to LLNL for evaluation.

7. CGM Analysis

This tape contained five CGM files. All files were evaluated using ATC's *MetaCheck* software with CALS options. The version in use is not the most current version of the software. This utility reported that all files meet the CALS MIL-D-28003 specification.

The files were evaluated using the AFCTN beta *validcgm* utility. This program reported errors in all files.

The AFCTB has several tools for viewing CGM files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of meeting CALS standards. All operations were performed using the default settings.

The files were converted using ArborText's *cgm2draw* utility. No errors were reported during this procedure. The resulting files were read into Island Graphics' *IslandDraw*. With the exception of font problems and misplaced lines, the files all displayed and printed correctly. It was noted that no colors were displayed on the screen.

The files were directly imported into Island Graphics' *IslandDraw*. File C204 was missing the boxes around the restricted text. File C205 had most of the entities placed in the lower right corner. They over laid other entities. File C209 had some text over flow. Color was displayed where it added to initial files.

The files were imported into SPC's *Harvard Graphics 3.05* with all files except C208 reporting errors. The errors were line style, non-CGM entities, and non-converted entities. Files C204 displayed missing polygon sets and cell arrays. The text font was also incorrect. File C205 had missing entities. File C206 had many entities missing. Most of the lines in file C207 did not display or print. File C208 had many text overflows.

Attempts to read the files with the Micrografx *Designer* and Inset Systems' *HiJaak for Windows* did not work with a Run time error being displayed.

Per Beverly Bernard of Inset Systems, "The problems associated with *HiJaak for Windows v1.0* have been corrected with *HiJaak PRO v2.0*."

According to Michael Harrison of Micrografx, "Micrografx is aware of the problems associated with reading these files and is working on a solution to be implemented in a future release of our products."

All files were viewed using ATC's MetaView software. All files displayed with files C204 and C208 generating error messages. Files C204 and C208 also displayed font problems which are part of MetaView.

The CGM files were reported as meeting the CALS MIL-D-28003 specification.

8. Conclusions and Recommendations

In summary, the tape from Northrop Corporation correct. The tape could be read properly using the AFCTN *Tapetool* and TI version without any reported errors. The physical structure of the tape meets the CALS MIL-STD-1840A requirements.

The IGES files meet the CALS MIL-D-28000A specifications.

Because of reported errors in the Text file, the SGML part of this tape does not meet the CALS MIL-M-28001A specification.

The Type II Raster file could not evaluated at the AFCTB.

The CGM files were reported as meeting the CALS MIL-D-28003 specification.

The tape does not meet the CALS MIL-STD-1840A requirements, because of minor errors in the text file.

9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

```
Air Force CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Sun Mar  7 14:42:44 1993
MIL-STD-1840A File Catalog
File Set Directory: /cals/tapetool8/Set070
```

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D002	Document Declaration	D/00260	02048/000001	Extracted
D003	Document Declaration	D/00260	02048/000001	Extracted
D001T001	Text	D/00260	02048/000001	Extracted
D001G002	DTD	D/00260	02048/000034	Extracted
D001H003	Output Specification	D/00260	02048/000001	Extracted
D001R004	Raster	F/00128	02048/000008	Extracted
D002T001	Text	D/00260	02048/000001	Extracted
D002G002	DTD	D/00260	02048/000034	Extracted
D002H003	Output Specification	D/00260	02048/000001	Extracted
D002C004	CGM	F/00080	00800/000006	Extracted
D002C005	CGM	F/00080	00800/000002	Extracted
D002C006	CGM	F/00080	00800/000002	Extracted
D002C007	CGM	F/00080	00800/000002	Extracted
D002C008	CGM	F/00080	00800/000002	Extracted
D003T001	Text	D/00260	02048/000001	Extracted
D003G002	DTD	D/00260	02048/000034	Extracted
D003H003	Output Specification	D/00260	02048/000001	Extracted
D003Q004	IGES	F/00080	02000/000012	Extracted
D003Q005	IGES	F/00080	02000/000573	Extracted
D003Q006	IGES	F/00080	02000/000033	Extracted
D003Q007	IGES	F/00080	02000/000042	Extracted

```
Catalog Process terminated normally.
```

9.2 Tape Evaluation Log

```
Air Force CALS Test Network Tape Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Sun Mar  7 14:42:02 1993

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1ITDS01                CONTROLLER                                          4

  Label Identifier: VOL1
  Volume Identifier: ITDS01
  Volume Accessibility:
  Owner Identifier:
  Label Standard Version: 4

HDR1D001             ITDS0100010001000100 93057 93057 000000  CONTROLLER

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93057
  Expiration Date:  93057
  File Accessibility:
  Block Count: 000000
  Implementation Identifier:   CONTROLLER

HDR2D0204800260                                    00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00
```

```
************ Tape Mark ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 1.

************ Tape Mark ***************

EOF1D001            ITDS0100010001000100 93057 93057 000001  CONTROLLER

  Label Identifier: EOF1
  File Identifier: D001
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93057
  Expiration Date:  93057
  File Accessibility:
  Block Count: 000001
  Implementation Identifier:    CONTROLLER

EOF2D0204800260                                    00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

                    <<<<< PART OF LOG REMOVED HERE >>>>>

************ Tape Mark ***************

HDR1D003Q007        ITDS0100010022000100 93057 93057 000000  CONTROLLER

  Label Identifier: HDR1
  File Identifier: D003Q007
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0022
  Generation Number: 0001
  Generation Version Number: 00
```

```
  Creation Date:  93057
  Expiration Date:  93057
  File Accessibility:
  Block Count: 000000
  Implementation Identifier:    CONTROLLER

HDR2F0200000080                                    00

  Label Identifier: HDR2
  Recording Format: F
  Block Length: 02000
  Record Length: 00080
  Offset Length: 00

************ Tape Mark ***************

  Actual Block Size Found = 2000 Bytes.

  Number of data blocks read = 42.

************ Tape Mark ***************

EOF1D003Q007          ITDS0100010022000100 93057 93057 000042   CONTROLLER

  Label Identifier: EOF1
  File Identifier: D003Q007
  File Set Identifier: ITDS01
  File Section Number: 0001
  File Sequence Number: 0022
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93057
  Expiration Date:  93057
  File Accessibility:
  Block Count: 000042
  Implementation Identifier:    CONTROLLER

EOF2F0200000080                                    00

  Label Identifier: EOF2
  Recording Format: F
  Block Length: 02000
  Record Length: 00080
  Offset Length: 00

************ Tape Mark ***************
```

```
************ Tape Mark ***************

############ End of Volume ITDS01 ###############

############ End Of Tape File Set ###############

Deallocating /dev/rmt0...

Tape Import Process terminated with 0 error(s), 0 warning(s),
and 0 note(s).
```

9.3 Tape File Set Validation Log

```
Air Force CALS Test Network File Set Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Sun Mar  7 14:42:44 1993
MIL-STD-1840A File Set Evaluation Log
File Set: Set070

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: John P. Kent, ITDS Chief Engineer, Northrop Corporation, B-2 Division, L591/GK
srcdocid: STPRO25.11
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19930126
dstsys: Jeff Fisher, Integration Manager, USAF CALS Test Bed, HQ AFMC (I)/ENCT, Techne
dstdocid: CALS_RAS_TEST
dstrelid: NONE
dtetrn: 19930226
dlvacc: NONE
filcnt: T1, H1, G1, R1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: JOB GUIDE
docttl: graphics test


Found file: D001T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: STPRO25.11
dstdocid: CALS_RAS_TEST
txtfilid: W
doccls: UNCLASSIFIED
notes: NONE

Saving Text Header File: D001T001_HDR
Saving Text Data File: D001T001_TXT

Found file: D001G002
Extracting DTD Header Records...
```

```
Evaluating DTD Header Records...

srcdocid: STPRO25.11
dstdocid: CALS_RAS_TEST
notes: NONE

Saving DTD Header File: D001G002_HDR
Saving DTD Data File: D001G002_DTD

Found file: D001H003
Extracting Output Specification Header Records...
Evaluating Output Specification Header Records...

srcdocid: STPRO25.11
dstdocid: CALS_RAS_TEST
notes: NONE

Saving Output Specification Header File: D001H003_HDR
Saving Output Specification Data File: D001H003_OS

Found file: D001R004
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: STPRO25.11
dstdocid: CALS_RAS_TEST
txtfilid: W
figid: NONE
srcgph: test2.ras
doccls: UNCLASSIFIED
rtype: 2
rorient: 000,270
rpelcnt: 002560,003584
rdensty: 0300
notes: NONE

Saving Raster Header File: D001R004_HDR
Saving Raster Data File: D001R004_GR4

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.
```

No errors were encountered in Document D001.

Found file: D002

<<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D002.

Found file: D003

<<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

Found file: D003Q007
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: STPRO25.9
dstdocid: CALS_IGES_TEST
txtfilid: W
figid: NONE
srcgph: lgtable.igs
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D003Q007_HDR
Saving IGES Data File: D003Q007_IGS

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D003.
No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

10. Appendix B - Detailed IGES Analysis

10.1 File Q204

10.1.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9318/q304.igs

 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

 Today is March 7, 1993  3:33 PM

*** File and Product Name Information ***

   File name from sender     = 'apple2d.igs'
   File creation Date.Time   = '930225.134248'
   Model change Date.Time    = ''
   Author                    = 'tom'
   Department                = 'GRAPHICS'
   Product name from sender  = 'apple2d.igs'
   Destination product name  = 'apple2d.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version  = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***
```

```
   Model scale              =  1.0000E+00
   Unit flag                =  1
   Units                    =  'IN'
   Line weights             =  3
   Maximum line thickness   =  1.152632E-02
   Minimum line thickness   =  3.842107E-03
   Granularity              =  1.000000E-03
   Maximum coordinate       =  2.954101E+00

   Drafting standard applicable to original data is not specified.


*** Status Flag Summary ***

 Blank status:  Visible                      41
                Blanked                       0

 Independence:  Independent                  39
                Physically Subordinate        0
                Logically Subordinate         2
                Totally Subordinate           0

 Entity use:    Geometry                     39
                Annotation                    2
                Definition                    0
                Other                         0
                Logical/Positional            0
                2D parametric                 0
                Not Specified                 0

 Hierarchy:     Structure DE applies          0
                Subordinate DE applies       41
                Hierarchy property applies    0
                Not Specified                 0

*** Entity Occurrence Counts ***

 Entity   Form   Level    Count    Type
 ------   ----   -----    -----    ----

   106      11       0       24    Copious data - Piecewise planar, linear string(2D
   path)
   106      63       0        8    Simple closed planar curve
   110       0       0        6    Line
   404       0       0        1    Drawing
   406      16       0        1    Property - Drawing size
```

410 0 0 1 View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	41

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 41

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
-	-	-	32	-	6	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

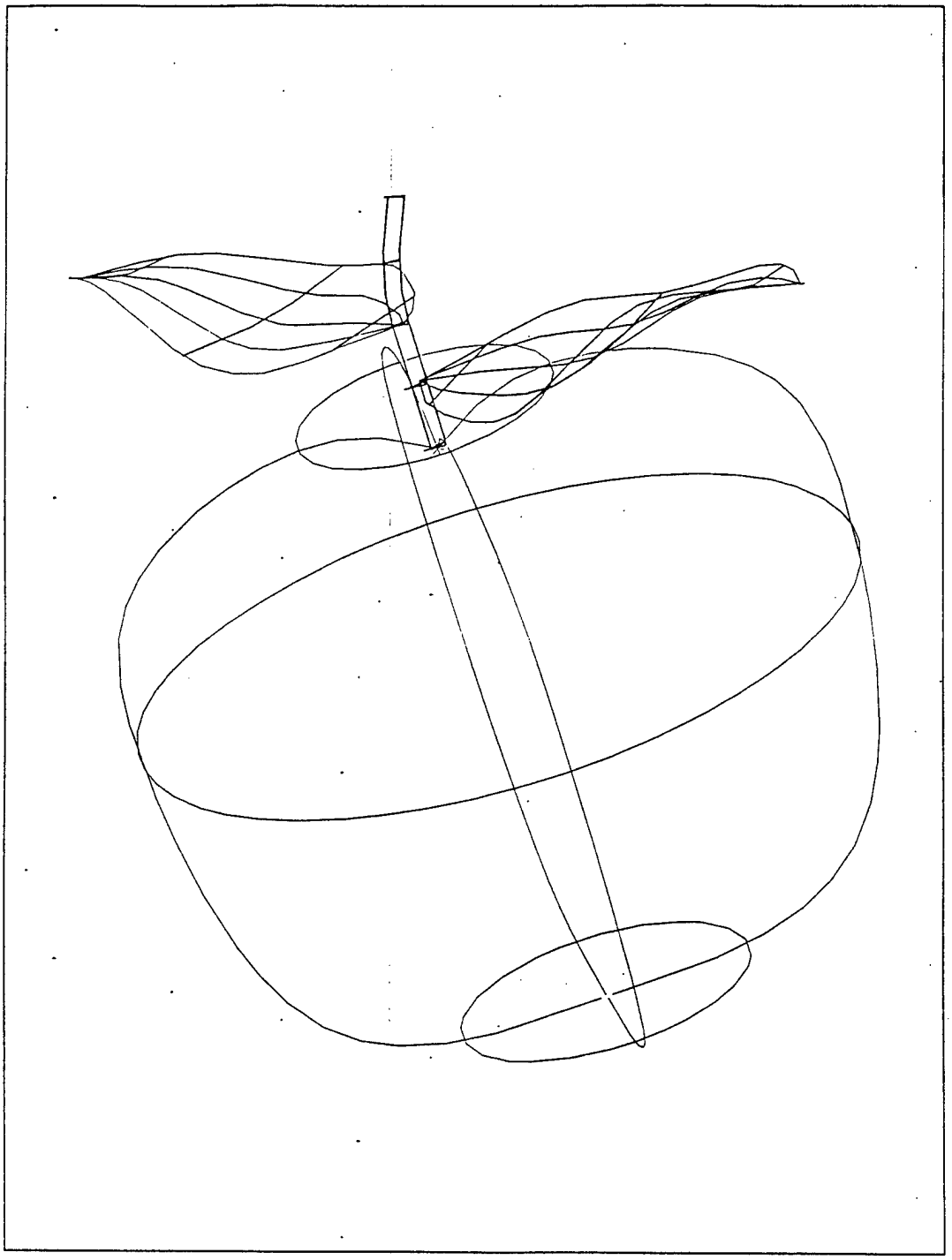
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

*** Line Widths Used in Data ***

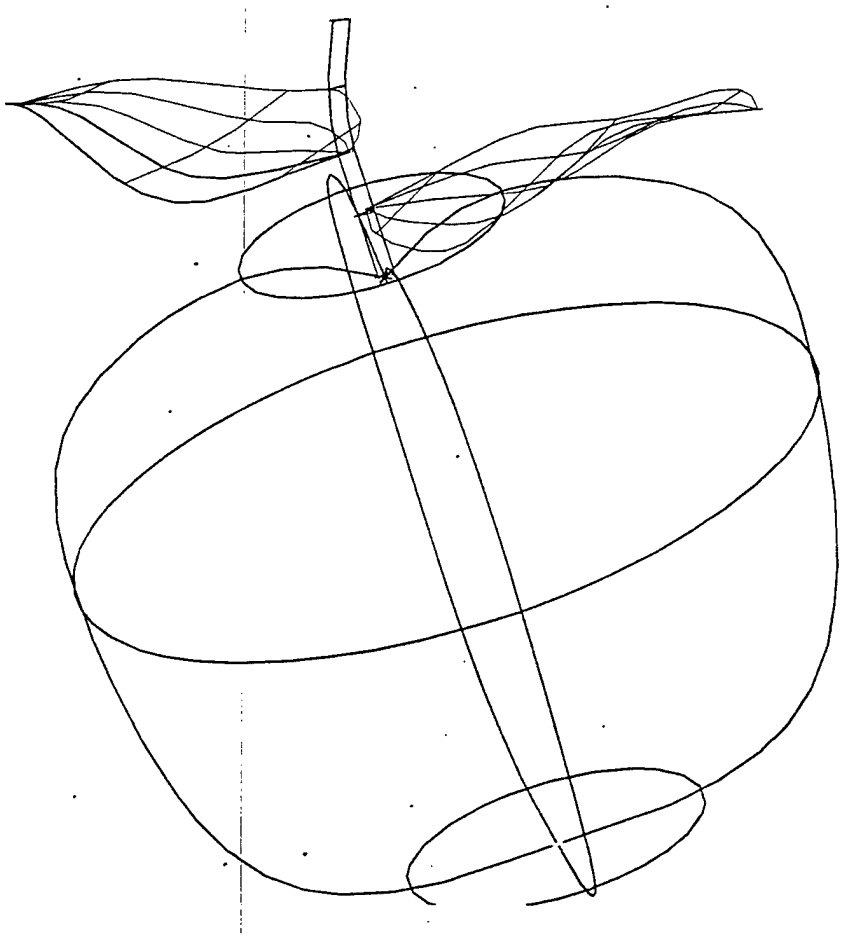
```
    Weight       Count     Width

  Defaulted        31      (0.0038)
       2           10      (0.0077)

 *** Colors Used in Data ***

  Defaulted         3
        Red         8
      Green        30


 *******************************
 ******  ENTITY ANALYSIS  ******
 *******************************


 *** Entity type: 106


 *** Entity type: 110

  --      6 lines averaging 1.362447E-01 units --

 *** Entity type: 404

Drawing at D       5 contains 1 views.
Drawing at D       5 contains 0 annotation entities.

 *** Entity type: 406


 *** Entity type: 410

  Scale of view at D       1 is 1.000000E+00.
Orthographic View entity at D       1 has  0 clipping planes specified.
   XMIN = Not Set        XMAX = Not Set
   YMIN = Not Set        YMAX = Not Set
   ZMIN = Not Set        ZMAX = Not Set


 *** Message Summary ***


 *** Error Summary ***
```

```
     0 fatal errors
     0 severe errors
     0 errors
     0 warnings
     0 cautions
     0 nitpicks
     0 notes

*** End of Analysis of /novell/9318/q304.igs ***
```

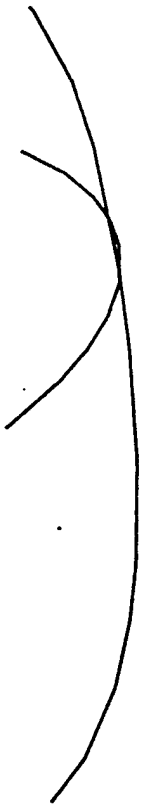
10.1.2 Output IGESWorks



10.1.3 Output IGESView



10.1.4 Output iges2draw/IslandDraw



10.2 File Q205

10.2.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9318/q305.igs

 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

 Today is March 7, 1993  3:34 PM

*** File and Product Name Information ***

   File name from sender     = 'classic2d.igs'
   File creation Date.Time   = '930225.134304'
   Model change Date.Time    = ''
   Author                    = 'Boardhead'
   Department                = 'WINDY'
   Product name from sender  = 'classic2d.igs'
   Destination product name  = 'classic2d.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***

   Model scale             =  1.0000E+00
   Unit flag               =  2
```

Units	=	'MM'
Line weights	=	3
Maximum line thickness	=	3.520439E+00
Minimum line thickness	=	1.173480E+00
Granularity	=	1.000000E-03
Maximum coordinate	=	8.782127E+02

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	2988
	Blanked	0
Independence:	Independent	2986
	Physically Subordinate	0
	Logically Subordinate	2
	Totally Subordinate	0
Entity use:	Geometry	2518
	Annotation	470
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	2988
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
100	0	0	242	Circular arc
104	1	0	15	Conic arc - ellipse
106	11	0	123	Copious data - Piecewise planar, linear string(2D path)
106	63	0	82	Simple closed planar curve
110	0	0	2024	Line
112	0	0	16	Parametric spline curve
124	0	0	15	Transformation matrix
212	0	0	468	General note

404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	2988

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 2988

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
237	-	15	205	-	1765	16	-	Solid
4	-	-	-	-	97	-	-	Dashed
1	-	-	-	-	145	-	-	Phantom
-	-	-	-	-	17	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	15	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

```
 *** Line Widths Used in Data ***

     Weight       Count      Width

  Defaulted       486       (1.1735)
       2         2179       (2.3470)
       1          323       (1.1735)

 *** Colors Used in Data ***

  Defaulted        18
        Red       965
      Green         8
       Blue       106
     Yellow      1765
    Magenta        65
      White        61


 ********************************
 ******  ENTITY ANALYSIS  ******
 ********************************


 *** Entity type: 100


 *** Entity type: 104

WARNING 2265: Start point off conic by 8.961375E-03 at D    381.
WARNING 2039: End point off conic by 2.300953E-02 at D    381.

                              <<<<< PART OF LOG REMOVED HERE >>>>>

 *** Entity type: 106


 *** Entity type: 110

  --  2024 lines averaging 1.694140E+01 units --

 *** Entity type: 112


 *** Entity type: 124
```

15 transformation matrices, 15 non-zero translations. NOTE 2341: 15 matrices contain translation information.

*** Entity type: 212

468 text strings in data file. Average text aspect ratio in file is 1.0159167. Minimum text aspect ratio in file is 0.7623555. Maximum text aspect ratio in file is 1.1000000.

FONTS USED IN FILE

FONT	COUNT	NAME
1	468	Default ASCII Style

*** Entity type: 404

Drawing at D 5 contains 1 views. Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00. Orthographic View entity at D 1 has 0 clipping planes specified. XMIN = Not Set XMAX = Not Set YMIN = Not Set YMAX = Not Set ZMIN = Not Set ZMAX = Not Set

*** Message Summary ***

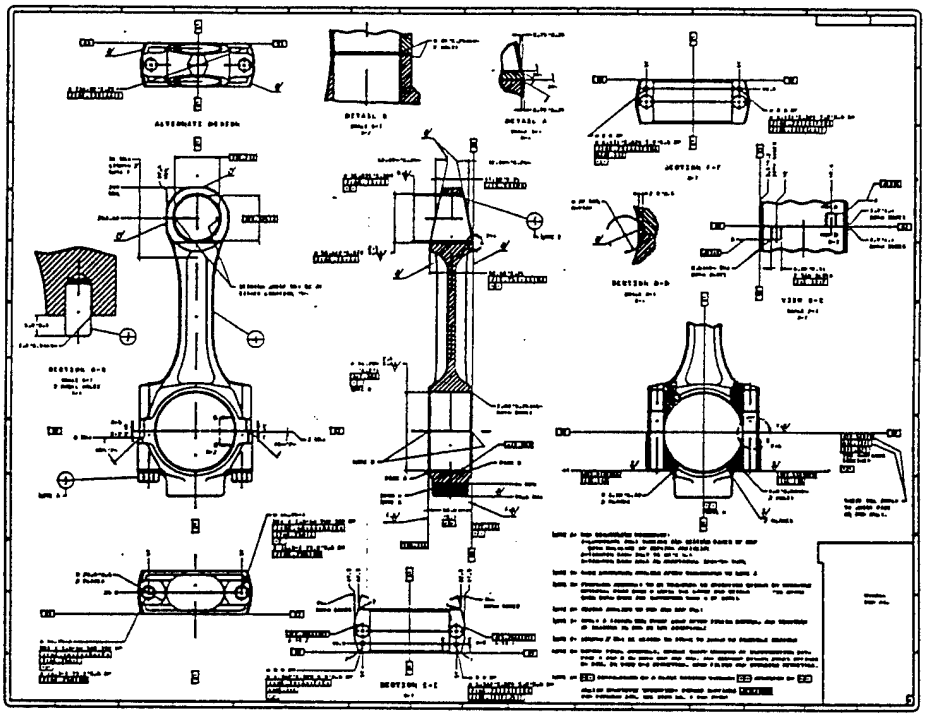
2015: 18 Mathematically incorrect definitions.

*** Error Summary ***

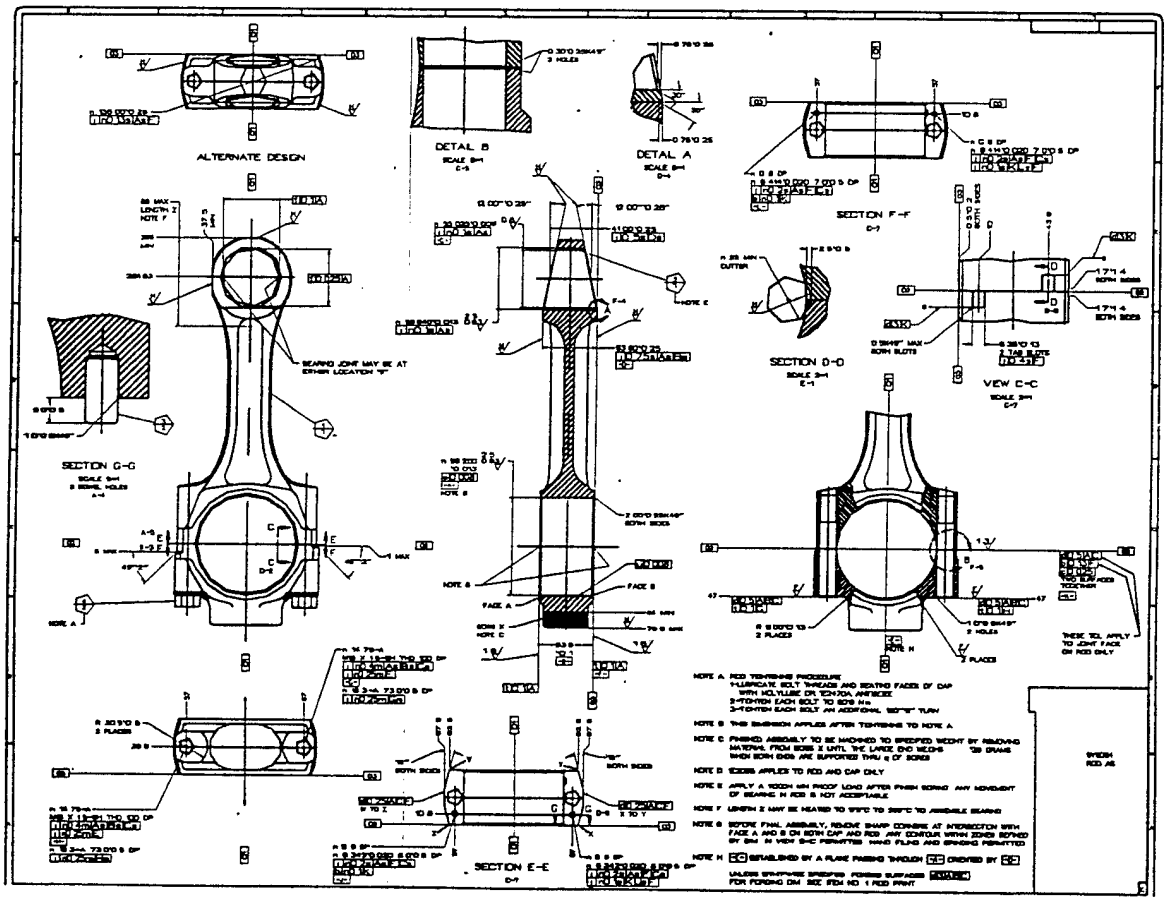
0 fatal errors 0 severe errors 0 errors 18 warnings 0 cautions 0 nitpicks 1 notes

*** End of Analysis of /novell/9318/q305.igs ***

10.2.2 Output IGESWorks



10.2.3 Output IGESView



10.3 File Q206

10.3.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9318/q306.igs

 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

 Today is March 7, 1993  3:34 PM

*** File and Product Name Information ***

   File name from sender     = 'ientity.igs'
   File creation Date.Time   = '930225.134222'
   Model change Date.Time    = ''
   Author                    = 'KASSEL'
   Department                = 'Air Force CALS Test Network'
   Product name from sender  = 'ientity.igs'
   Destination product name  = 'ientity.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***

   Model scale            =  1.0000E+00
   Unit flag              =  1
```

```
    Units                   =  'IN'
    Line weights            =  1
    Maximum line thickness  =  1.680104E-02
    Minimum line thickness  =  1.680104E-02
CAUTION 2317: Maximum line thickness equal to minimum thickness.
    Granularity             =  1.000000E-03
    Maximum coordinate      =  1.690002E+01

    Drafting standard applicable to original data is not specified.


 *** Status Flag Summary ***

  Blank status: Visible                      200
                Blanked                        0

  Independence: Independent                  185
                Physically Subordinate        12
                Logically Subordinate          3
                Totally Subordinate            0

  Entity use:   Geometry                      67
                Annotation                   132
                Definition                     1
                Other                          0
                Logical/Positional             0
                2D parametric                  0
                Not Specified                  0

  Hierarchy:    Structure DE applies           0
                Subordinate DE applies       200
                Hierarchy property applies     0
                Not Specified                  0

 *** Entity Occurrence Counts ***

  Entity   Form   Level    Count    Type
  ------   ----   -----    -----    ----

    100       0       0        3    Circular arc
    102       0       0        1    Composite curve
    104       1       0        2    Conic arc - ellipse
    104       2       0        1    Conic arc - hyperbola
    104       3       0        1    Conic arc - parabola
    106      11       0        1    Copious data - Piecewise planar, linear string(2D
    path)
    106      63       0        1    Simple closed planar curve
```

110	0	0	27	Line
112	0	0	2	Parametric spline curve
124	0	0	12	Transformation matrix
126	0	0	6	Rational B-spline curve
212	0	0	129	General note
230	0	0	1	Sectioned area (Standard Crosshatching)
308	0	0	1	Subfigure definition
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	1	Property - Intercharacter spacing
408	0	0	8	Single subfigure instance
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	200

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 200

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
3	1	4	2	-	27	2	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

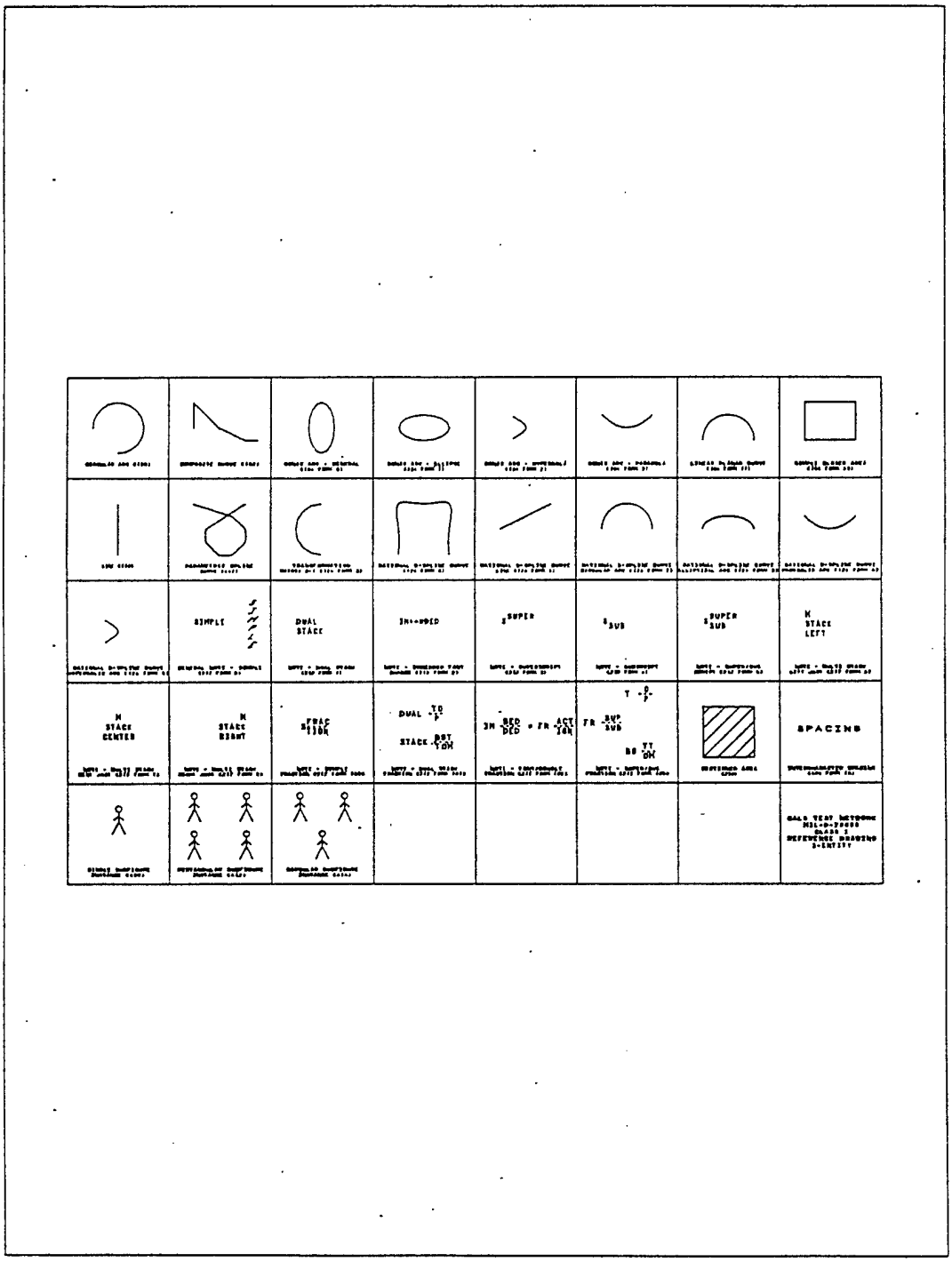
116	118	120	122	124	125	126	128	
-	-	-	-	12	-	-	-	Undefined
-	-	-	-	-	-	6	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

```
 130   132   134   136   138   140   142   144

  -     -     -     -     -     -     -     -    Undefined
  -     -     -     -     -     -     -     -    Solid
  -     -     -     -     -     -     -     -    Dashed
  -     -     -     -     -     -     -     -    Phantom
  -     -     -     -     -     -     -     -    Center-line
  -     -     -     -     -     -     -     -    Dotted
  -     -     -     -     -     -     -     -    User defined

 *** Line Widths Used in Data ***

     Weight       Count      Width

  Defaulted       200       (0.0168)

 *** Colors Used in Data ***

  Defaulted        25
        Red       175


 ********************************
 ******  ENTITY ANALYSIS  ******
 ********************************


 *** Entity type: 100


 *** Entity type: 102


 *** Entity type: 104

WARNING 2265: Start point off conic by 2.666563E-03 at D      23.
WARNING 2265: Start point off conic by 1.456414E-03 at D      27.

 *** Entity type: 106


 *** Entity type: 110

  --     27 lines averaging 7.155336E+00 units --

 *** Entity type: 112
```

```
 *** Entity type: 124

12 transformation matrices, 4 non-zero translations.
NOTE    2341: 4 matrices contain translation information.

 *** Entity type: 126


 *** Entity type: 212

       129 text strings in data file.
       Average text aspect ratio in file is 0.9982937.
       Minimum text aspect ratio in file is 0.7978667.
       Maximum text aspect ratio in file is 1.4857143.

       FONTS USED IN FILE

       FONT    COUNT    NAME

          1      127    Default ASCII Style
       1002        2    Symbol Font 2

 *** Entity type: 230


 *** Entity type: 308

  Subfigure name at D      19: 'subfig0'.
    Number of included entities = 6.

 *** Entity type: 404

Drawing at D       5 contains 1 views.
Drawing at D       5 contains 0 annotation entities.

 *** Entity type: 406


 *** Entity type: 408

  Subfigure instance at D    363 references subfigure at D      19.
  Subfigure instance at D    373 references subfigure at D      19.
  Subfigure instance at D    377 references subfigure at D      19.
  Subfigure instance at D    381 references subfigure at D      19.
  Subfigure instance at D    385 references subfigure at D      19.
  Subfigure instance at D    389 references subfigure at D      19.
```

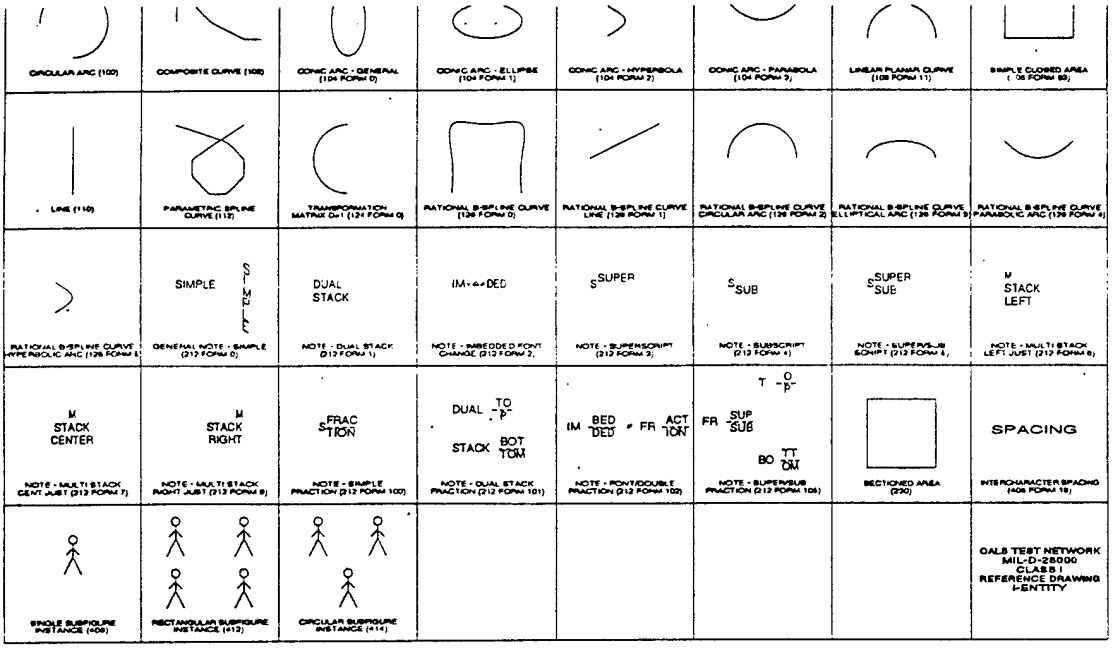
```
  Subfigure instance at D    393 references subfigure at D     19.
  Subfigure instance at D    397 references subfigure at D     19.

 *** Entity type: 410

  Scale of view at D      1 is 1.000000E+00.
Orthographic View entity at D      1 has  0 clipping planes specified.
   XMIN = Not Set       XMAX = Not Set
   YMIN = Not Set       YMAX = Not Set
   ZMIN = Not Set       ZMAX = Not Set


 *** Message Summary ***

2015: 2 Mathematically incorrect definitions.
2018: 1 Problems with line weight/width display information.

 *** Error Summary ***

     0 fatal errors
     0 severe errors
     0 errors
     2 warnings
     1 cautions
     0 nitpicks
     1 notes

 *** End of Analysis of /novell/9318/q306.igs ***
```

10.3.2 Output IGESWorks



10.3.3 Output IGESView

10.3.4 Output iges2draw/IslandDraw



10.4 File Q207

10.4.1 Parser/Verifier Log

```
          *** IGES DATA FILE ANALYSIS ***
          ***       MARCH 1992       ***
          ***   IGES Data Analysis   ***
          ***     (708) 449-3430     ***

 Input file is /novell/9318/q307.igs

 Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

 Today is March 7, 1993  3:34 PM

*** File and Product Name Information ***

   File name from sender     = 'lgtable.igs'
   File creation Date.Time   = '930225.134240'
   Model change Date.Time    = ''
   Author                    = 'FARRELL'
   Department                = 'Air Force CALS Test Network'
   Product name from sender  = 'lgtable.igs'
   Destination product name  = 'lgtable.igs'

*** Parameter Delimiters ***

   Delimiter  = ','
   Terminator = ';'

*** Originating System Data ***

   System ID              = 'ITDS CONVERTER: GEF_IGES'
   Preprocessor version   = '1.0'
   Specification version = 6 (IGES 4.0)

*** Precision levels ***
   Integer bits =    32
   Floating point  -  Exponent =    38  Mantissa =     6
   Double precision - Exponent =   308  Mantissa =    15

*** Global Model Data ***

   Model scale            =  1.0000E+00
   Unit flag              =  1
```

Units = 'IN'
Line weights = 5
Maximum line thickness = 4.735348E-02
Minimum line thickness = 9.470696E-03
Granularity = 1.000000E-03
Maximum coordinate = 9.391507E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	280
	Blanked	0
Independence:	Independent	267
	Physically Subordinate	11
	Logically Subordinate	2
	Totally Subordinate	0
Entity use:	Geometry	226
	Annotation	54
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	280
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
100	0	0	85	Circular arc
102	0	0	2	Composite curve
104	1	0	5	Conic arc - ellipse
110	0	0	116	Line
112	0	0	12	Parametric spline curve
124	0	0	5	Transformation matrix
212	0	0	47	General note
230	0	0	5	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing

406	16	0	1	Property - Drawing size
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	280

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 280

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
85	2	5	-	-	107	12	-	Solid
-	-	-	-	-	9	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

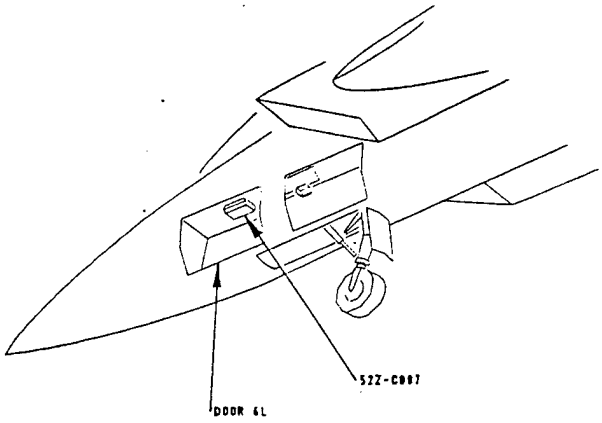
116	118	120	122	124	125	126	128	
-	-	-	-	5	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

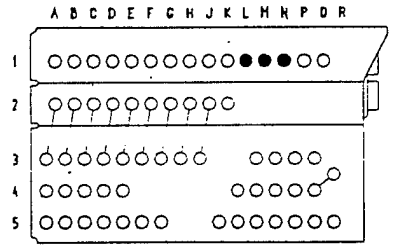
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

```
 *** Line Widths Used in Data ***

     Weight       Count      Width

  Defaulted         73       (0.0095)
       3            22       (0.0284)
       2           123       (0.0189)
       4            62       (0.0379)

 *** Colors Used in Data ***

  Defaulted        196
       Blue         22
       Cyan         62


 ********************************
 ******  ENTITY ANALYSIS  ******
 ********************************


 *** Entity type: 100


 *** Entity type: 102


 *** Entity type: 104

WARNING 2265: Start point off conic by 7.999625E-03 at D     73.
WARNING 2265: Start point off conic by 1.788987E-02 at D     81.
WARNING 2039: End point off conic by 1.581491E-03 at D      81.
WARNING 2265: Start point off conic by 1.594810E-02 at D    141.
WARNING 2265: Start point off conic by 3.114898E-02 at D    191.

 *** Entity type: 110

  --   116 lines averaging 5.326830E-01 units --

 *** Entity type: 112


 *** Entity type: 124

5 transformation matrices, 5 non-zero translations.
NOTE    2341: 5 matrices contain translation information.
```

```
 *** Entity type: 212

       47 text strings in data file.
       Average text aspect ratio in file is 0.7899129.
       Minimum text aspect ratio in file is 0.7580039.
       Maximum text aspect ratio in file is 1.0525425.

       FONTS USED IN FILE

       FONT    COUNT    NAME

          1       47    Default ASCII Style

 *** Entity type: 230


 *** Entity type: 404

Drawing at D       5 contains 1 views.
Drawing at D       5 contains 0 annotation entities.

 *** Entity type: 406


 *** Entity type: 410

  Scale of view at D       1 is 1.000000E+00.
Orthographic View entity at D       1 has  0 clipping planes specified.
   XMIN = Not Set        XMAX = Not Set
   YMIN = Not Set        YMAX = Not Set
   ZMIN = Not Set        ZMAX = Not Set

 *** Message Summary ***

2015: 5 Mathematically incorrect definitions.

 *** Error Summary ***

     0 fatal errors
     0 severe errors
     0 errors
     5 warnings
     0 cautions
     0 nitpicks
     1 notes

 *** End of Analysis of /novell/9318/q307.igs ***
```

10.4.2 Output IGESWorks



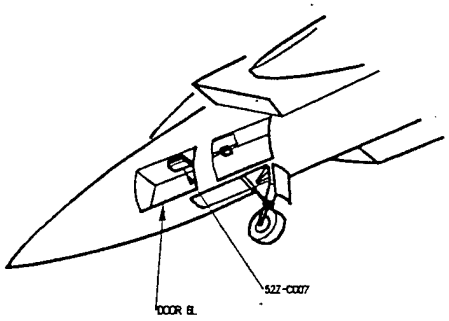


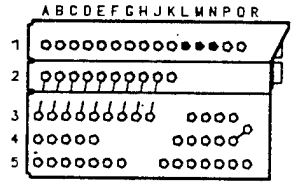
52Z-C007

52Z-C007	ESSENTIAL CIRCUIT BREAKER PANEL NO. 1		(24-50-12)
REF DES	ZONE	NOMENCLATURE	BUS
41CBC033	L1	R MLG WOW PWR 28VDC	ESS 28VDC
41CBC034	M1	L MLG WOW PWR 28VDC	ESS 28VDC
42CBC005	N1	LDG GR POS IND 28VDC	ESS 28VDC

CALS Test Network LGTABLE Reference Illustration

10.4.3 Output IGESView

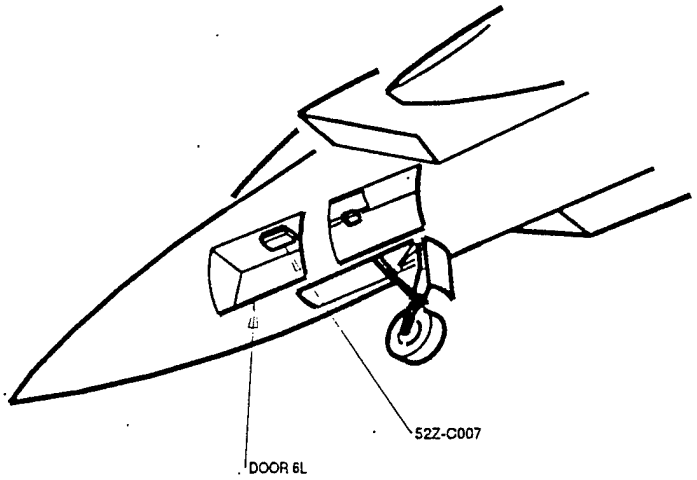


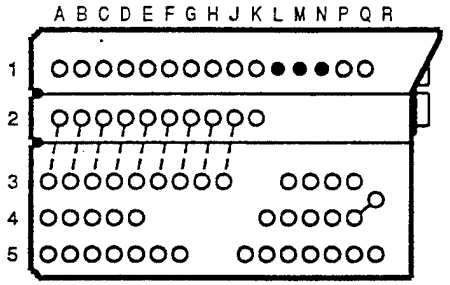


52Z-C007

52Z-C007	ESSENTIAL CIRCUIT BREAKER PANEL NO. 1		(24-50-12)
REF DES	ZONE	NOMENCLATURE	BUS
41CBC033	L1	R MLG WOW PWR 28VDC	ESS 28VDC
41CBC034	M1	L MLG WOW PWR 28VDC	ESS 28VDC
42CBC005	N1	LDG GR POS IND 28VDC	ESS 28VDC

10.4.4 Output iges2draw/IslandDraw





52Z-C007

52Z-C007	ESSENTIAL CIRCUIT BREAKER PANEL NO. 1		(24-50-1
REF DES	ZONE	NOMENCLATURE	BUS
41CBC033	L1	R MLG WOW PWR 28VDC	ESS 28VDI
41CBC034	M1	L MLG WOW PWR 28VDC	ESS 28VDI
42CBC005	N1	LDG GR POS IND 28VDC	ESS 28VDI

CALS Test Network LGTABLE Reference Illustr

11. Appendix C - Detailed SGML Analysis

11.1 Datalogics Parser Log

```
            SGML Document Type Definition Parser
                        Version 3.36
          Copyright (c) Datalogics 1988, 1989, 1990, 1991
                  An SGML System Conforming to
                International Standard ISO 8879
              Standard Generalized Markup Language

Log file: '9316.LOG'
SDO File: 'ctndecl.sdo'
Namecase General is yes.
Namecase Entity is no.
Parsing DTD file: '9316.dtd'

DTD0095: Start tag for element 'DATABASE' cannot be omitted if the
         element had declared content (CDATA, RCDATA, EMPTY).
DTD0095: Start tag for element 'MEDIUM' cannot be omitted if the
         element had declared content (CDATA, RCDATA, EMPTY).
DTD0096: The generic ID SHORTTITLE has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID CONTASSURPG has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID REFDOC has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID CFGPGE has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID COVERINDEX has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID STALOC has not been used in any content
         model, inclusion, or as a doctype element.
DTD0096: The generic ID TESTCODE has not been used in any content
         model, inclusion, or as a doctype element.
This DTD conforms to the ISO 8879 standard

DTO file '9316.DTO' created

closing statistics:
    Capacity points:                 71912
    Bytes of DTO file string space:  12664
    SGML descriptor blocks:          7101

Document Type Definition is compliant and parsed normally.
Program status code: 0.
```

12. Appendix E - Detailed CGM Analysis

12.1 File C204

12.1.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:03

Metafile Examined    : i:\9318\c204.cgm

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:05

Name of CGM under test: i:\9318\c204.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "allreal.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"
```

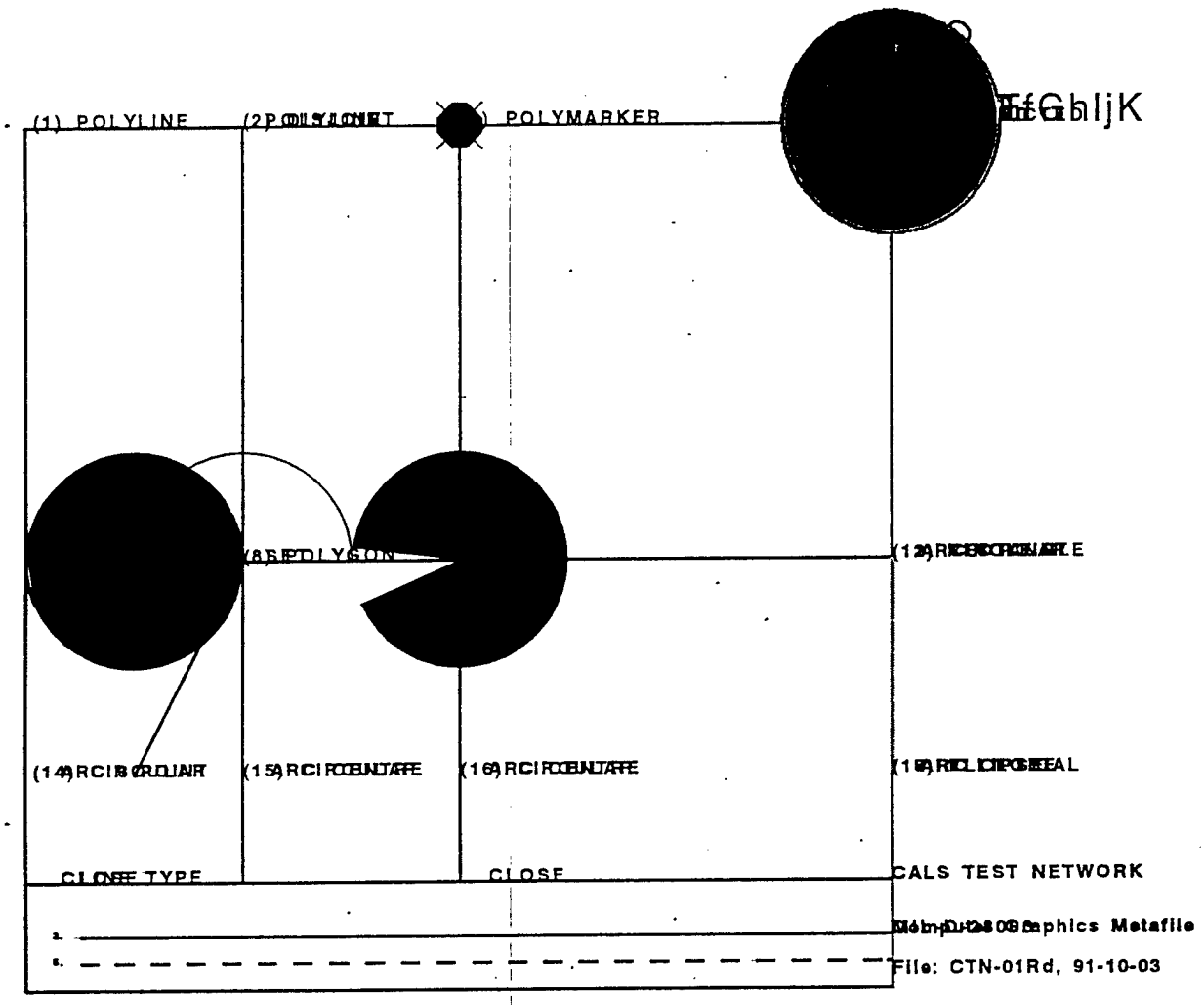
```
Picture 1 starts at octet offset 202; string contains: "Picture 1"

Conformance Summary  :  This file conforms to the CGM specification.

                        This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
        272 Elements Tested
       3980 Octets Tested

              ================================
              |    No Errors Were Detected    |
              ================================

================ End of Conformance Report =================
```

12.1.2 validcgm Log

```
Analysis for file c204.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)         (3, 6, 2)       Clip Indicator OFF
MILSPEC 28003 error: illegal hatch index
(173, 2354)       (5, 24, 2)      Hatch Index 6
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
```

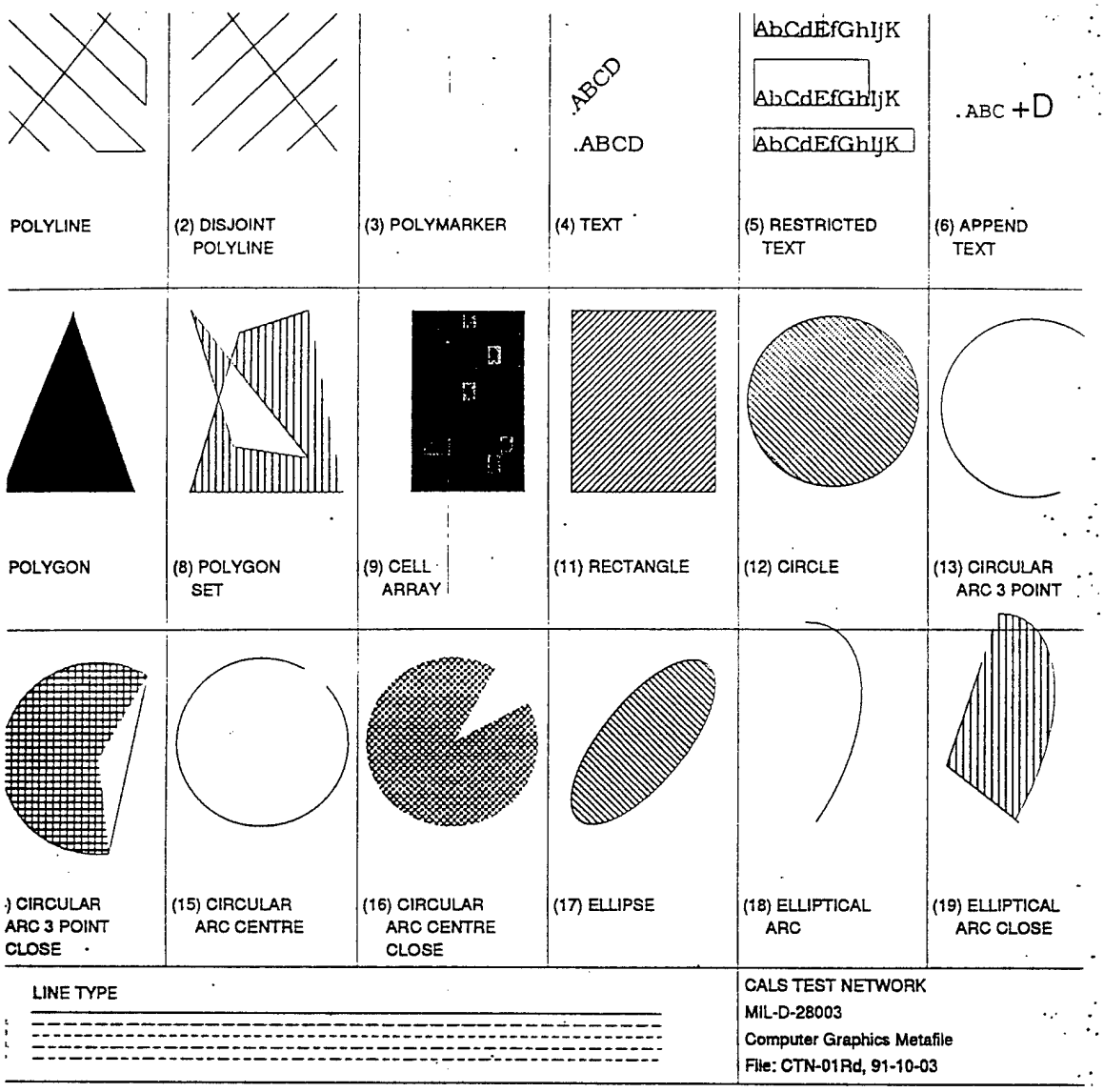
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
(4, 1) occurred 32 times
(4, 3) occurred 5 times
(4, 4) occurred 50 times
(4, 7) occurred 3 times
(4, 9) occurred 1 time
(4, 12) occurred 2 times
(4, 15) occurred 3 times
(4, 16) occurred 2 times
(4, 17) occurred 2 times
(4, 18) occurred 2 times
(4, 19) occurred 1 time
(5, 2) occurred 17 times
(5, 3) occurred 17 times
(5, 4) occurred 17 times
(5, 6) occurred 5 times
(5, 7) occurred 5 times
(5, 8) occurred 5 times
(5, 10) occurred 3 times
(5, 12) occurred 5 times
(5, 13) occurred 1 time
(5, 14) occurred 7 times
(5, 15) occurred 5 times
(5, 16) occurred 7 times
(5, 17) occurred 4 times
(5, 18) occurred 1 time
(5, 22) occurred 10 times
(5, 23) occurred 8 times
(5, 24) occurred 7 times
(5, 27) occurred 2 times
(5, 28) occurred 2 times
(5, 29) occurred 2 times
(5, 30) occurred 10 times
(5, 31) occurred 7 times
(5, 34) occurred 1 time

12.1.3 Output Harvard Graphics

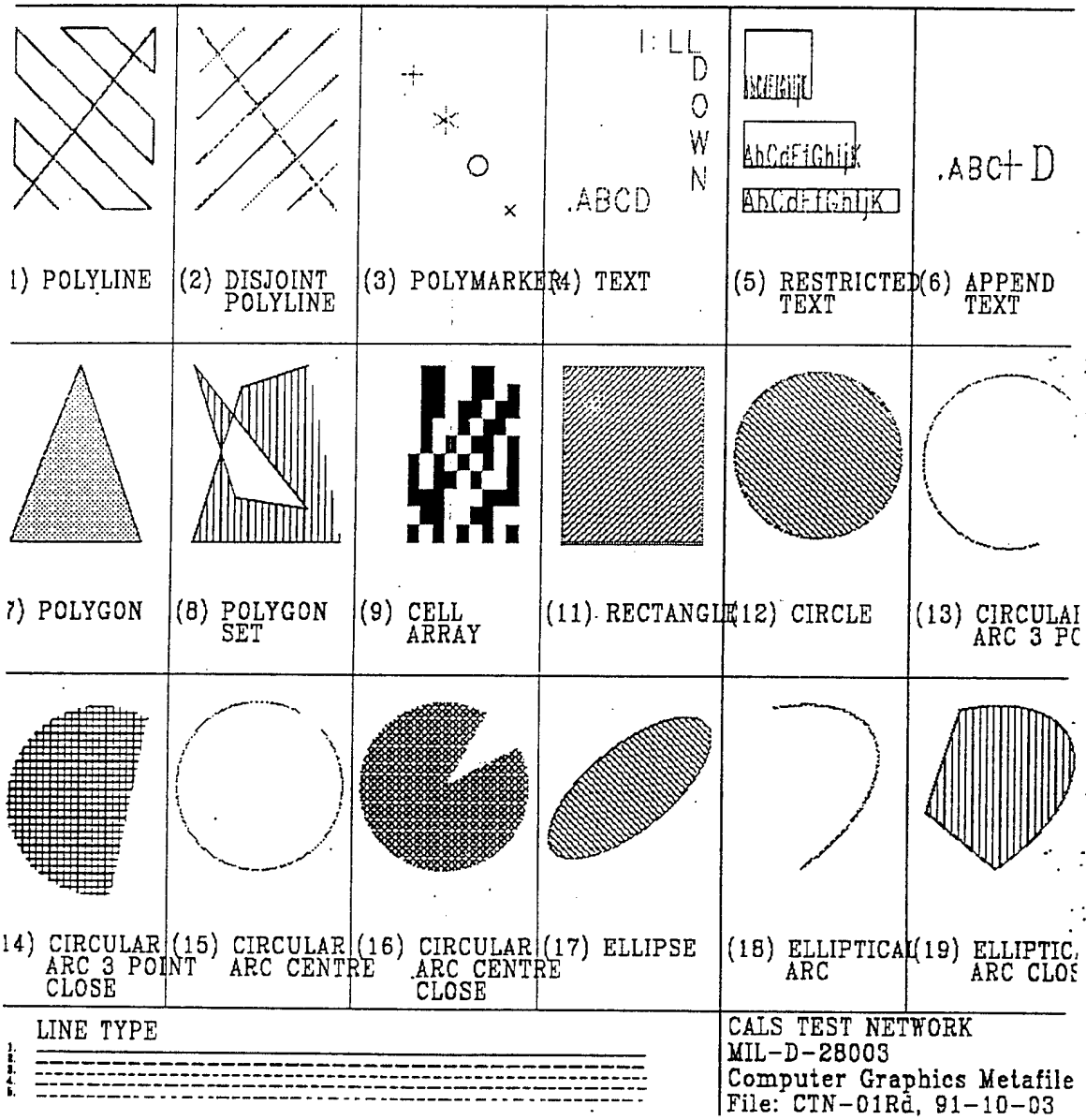


9318 - HG305 - C204

12.1.4 Output IslandDraw



12.1.5 Output cgm2draw/IslandDraw



12.2 File C205

12.2.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:13

Metafile Examined    : i:\9318\c205.cgm

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:15

Name of CGM under test: i:\9318\c205.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "arcs.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 154; string contains: "Picture 1"

Conformance Summary   :  This file conforms to the CGM specification.
```

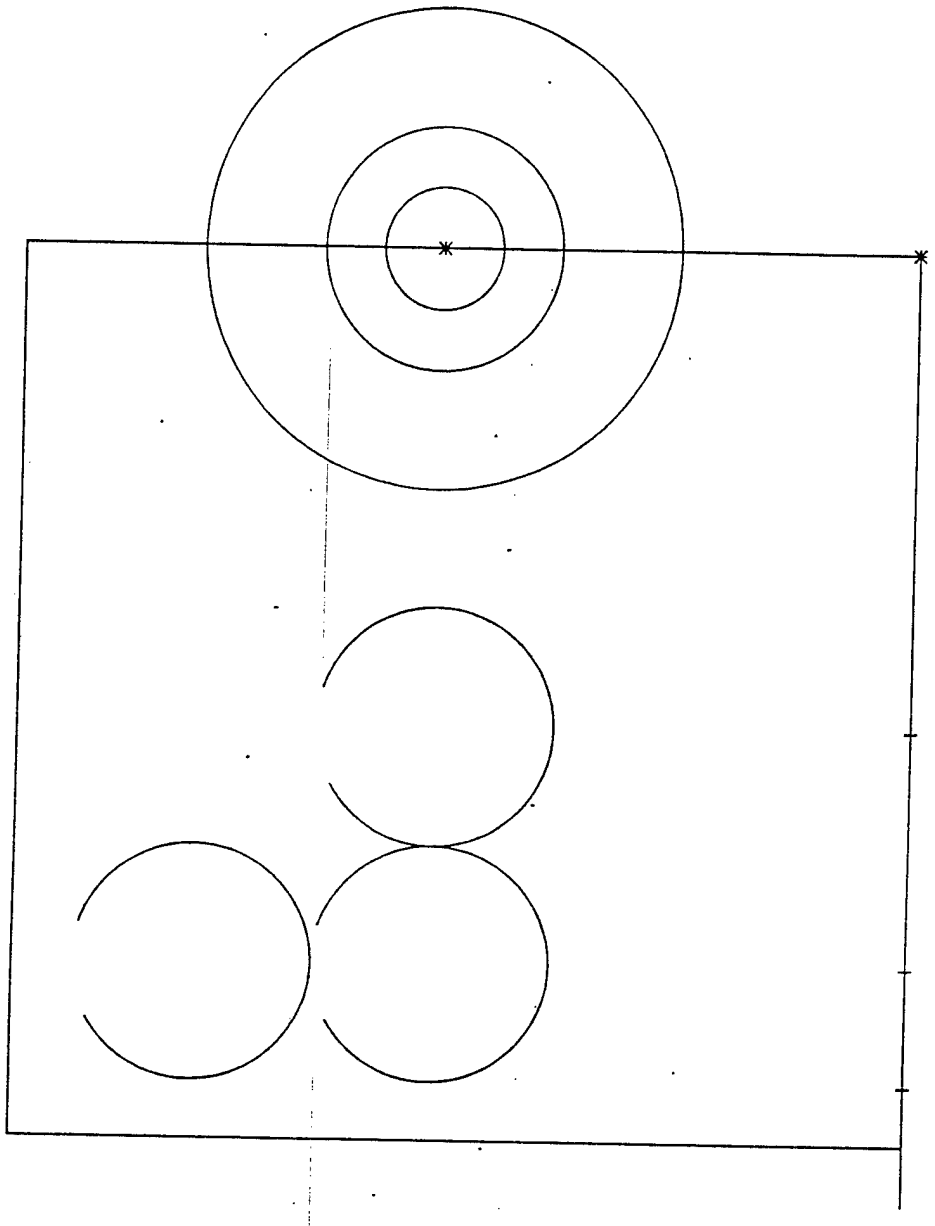
```
                    This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

           1 Pictures Tested
          62 Elements Tested
         942 Octets Tested

               ================================
               |    No Errors Were Detected    |
               ================================

================ End of Conformance Report ==================
```

12.2.2 validcgm Log

```
Analysis for file c205.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)         (3, 6, 2)       Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
```

(4, 1) occurred 2 times
(4, 3) occurred 3 times
(4, 12) occurred 5 times
(4, 15) occurred 4 times
(4, 17) occurred 4 times
(4, 18) occurred 2 times
(5, 2) occurred 5 times
(5, 3) occurred 5 times
(5, 4) occurred 4 times
(5, 6) occurred 2 times
(5, 7) occurred 1 time
(5, 8) occurred 1 time
(5, 22) occurred 1 time
(5, 23) occurred 1 time
(5, 34) occurred 1 time

12.2.3 Output Harvard Graphics



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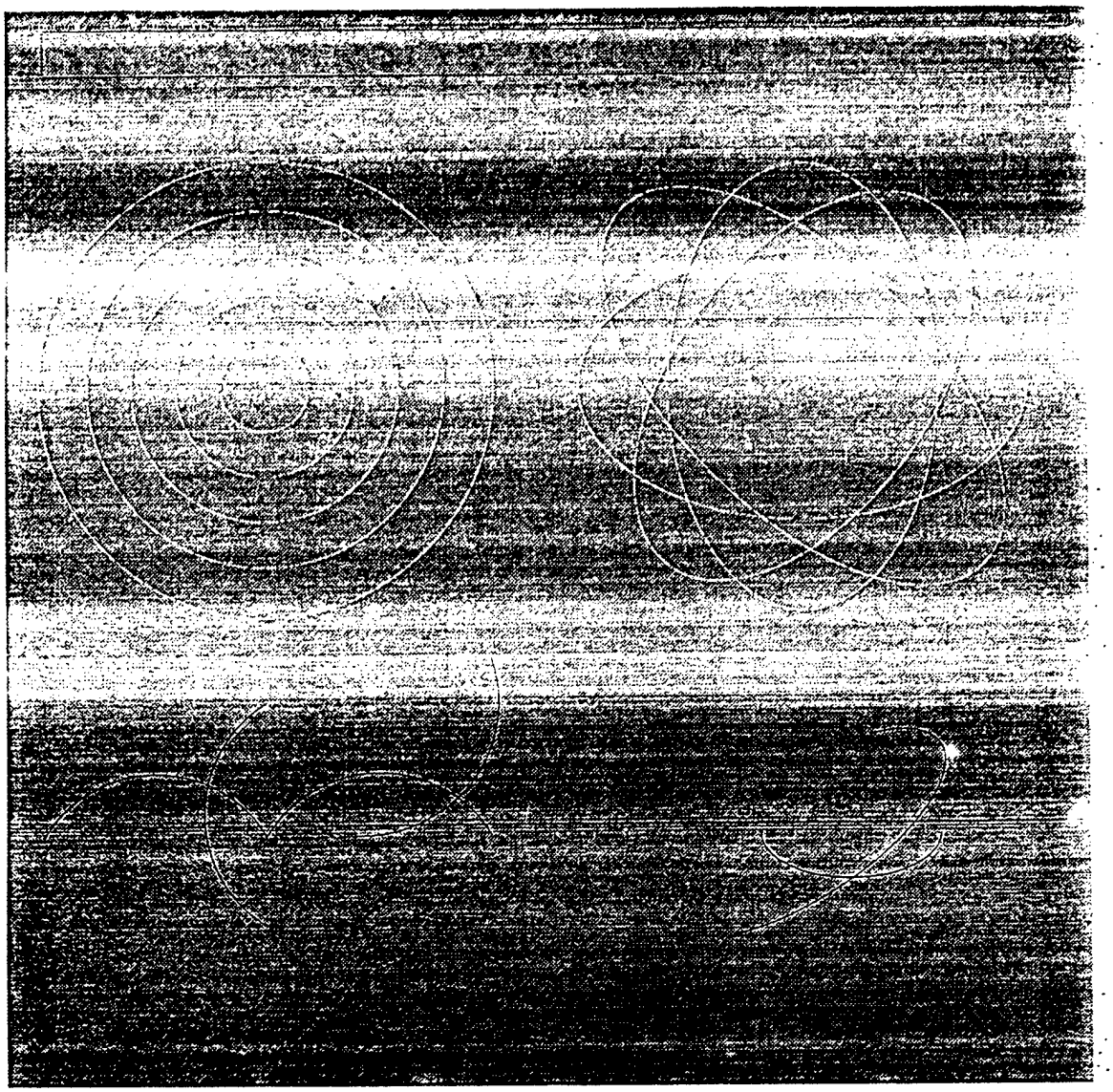
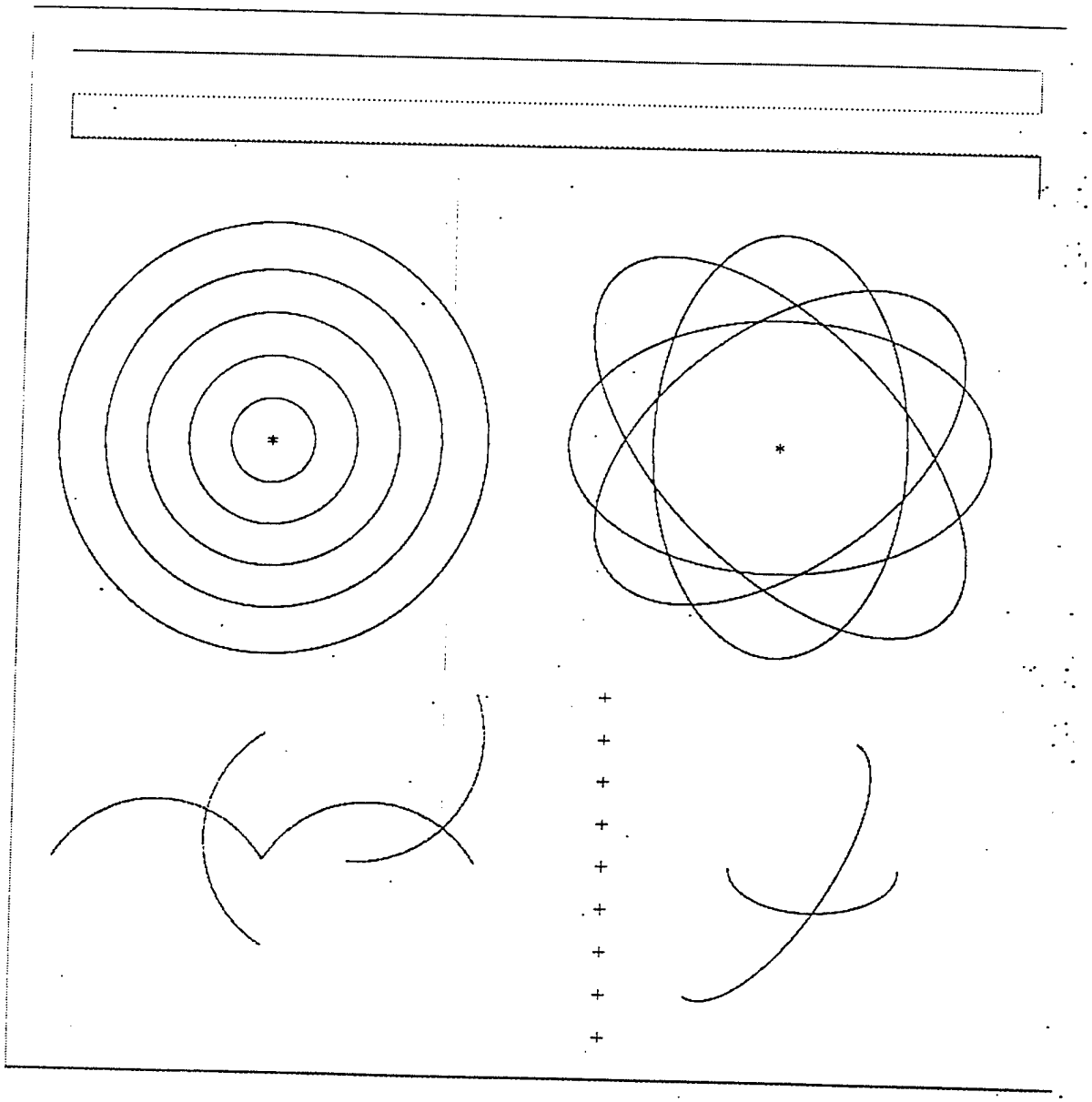
12.2.4 Output IslandDraw



12.2.5 Output cgm2draw/IslandDraw



12.3 File C206

12.3.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:22

Metafile Examined    : i:\9318\c206.cgm

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:24

Name of CGM under test: i:\9318\c206.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "fills.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 154; string contains: "Picture 1"

Conformance Summary   :  This file conforms to the CGM specification.
```

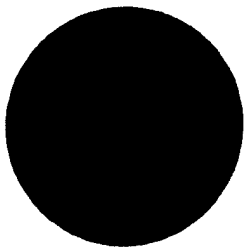
```
                    This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
         56 Elements Tested
        856 Octets Tested

              ==================================
              |    No Errors Were Detected     |
              ==================================

================ End of Conformance Report ==================
```

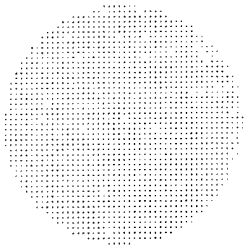
12.3.2 validcgm Log

```
Analysis for file c206.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)        (3, 6, 2)      Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
```

(4, 1) occurred 1 time
(4, 7) occurred 2 times
(4, 12) occurred 2 times
(4, 16) occurred 2 times
(4, 17) occurred 2 times
(4, 19) occurred 2 times
(5, 2) occurred 1 time
(5, 3) occurred 1 time
(5, 4) occurred 1 time
(5, 22) occurred 6 times
(5, 23) occurred 6 times
(5, 24) occurred 1 time
(5, 30) occurred 6 times
(5, 31) occurred 1 time
(5, 34) occurred 1 time

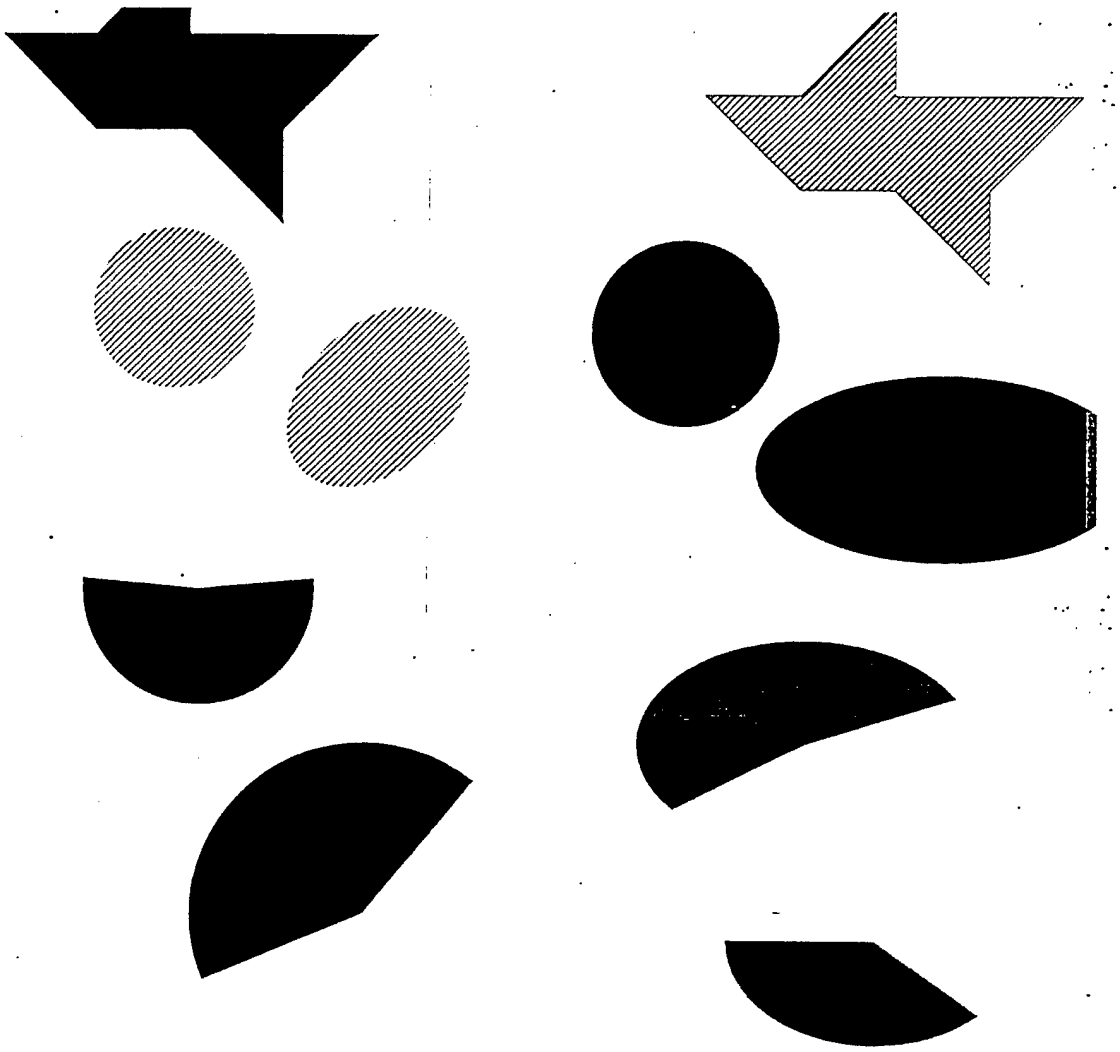
12.3.3 Output Harvard Graphics



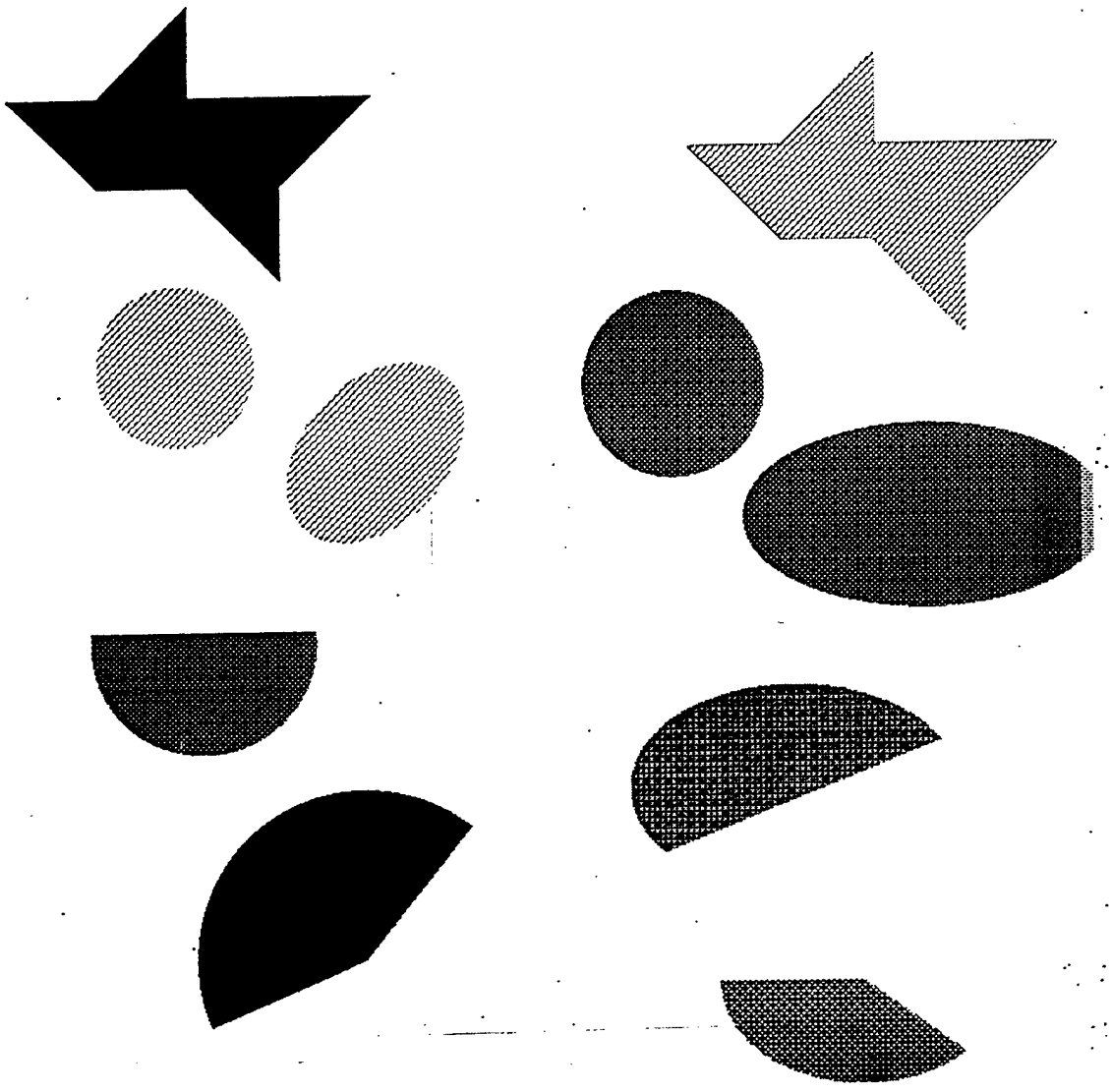


9318 - HG305 - C206

12.3.4 Output IslandDraw



12.3.5 Output cgm2draw/IslandDraw



12.4 File C207

12.4.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:32

Metafile Examined    : i:\9318\c207.cgm

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:33

Name of CGM under test: i:\9318\c207.cgm
Encoding              : Binary

Pictures Examined    : All
Elements Examined    : All
Bytes    Examined    : All

BEGIN METAFILE string : "lines.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 130; string contains: "Picture 1"

Private values encountered in CGM
```

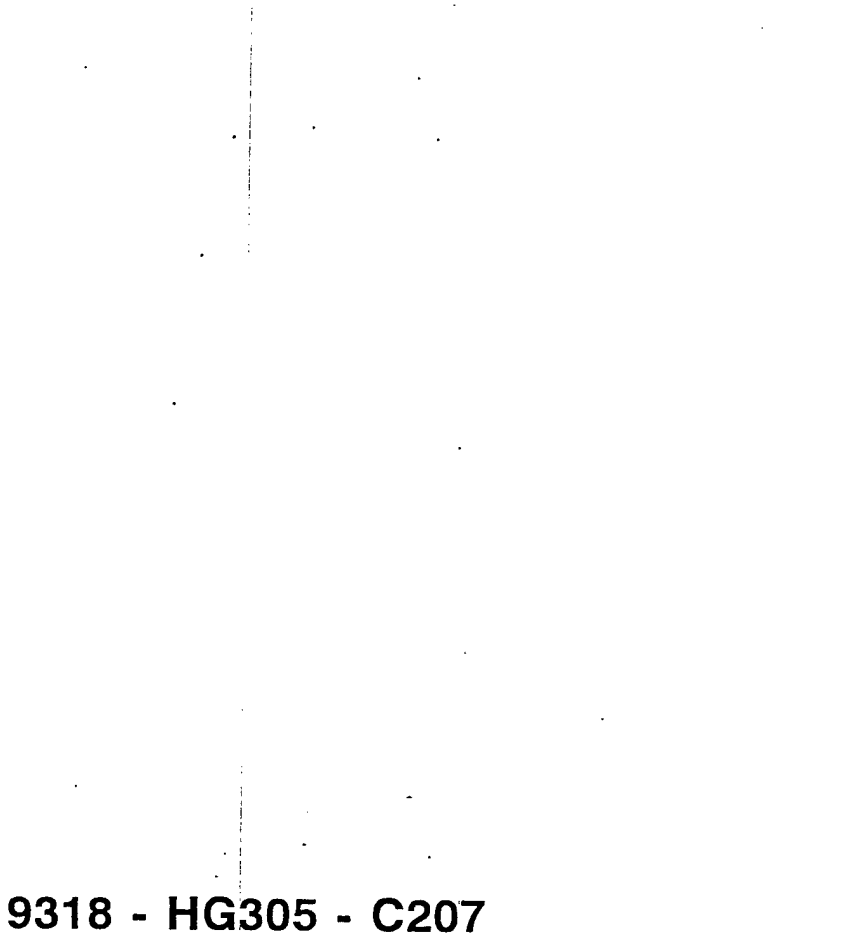
```
Conformance Summary  :  This file conforms to the CGM specification.

                        This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
         71 Elements Tested
        664 Octets Tested

              ================================
              |    No Errors Were Detected     |
              ================================

================ End of Conformance Report ==================
```

12.4.2 validcgm Log

```
Analysis for file c207.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(13.1, 0)         (3, 6, 2)       Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
```

(3, 6) occurred illegally 1 time
(4, 1) occurred 14 times
(5, 2) occurred 12 times
(5, 3) occurred 12 times
(5, 4) occurred 12 times
(5, 34) occurred 1 time

12.4.3 Output Harvard Graphics



12.4.4 Output IslandDraw

12.4.5 Output cgm2draw/IslandDraw

12.5 File C208

12.5.1 Parser Log MetaCheck

```
MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:41

Metafile Examined     : i:\9318\c208.cgm

Pictures Examined     : All
Elements Examined     : All
Bytes    Examined     : All

======================== Trace Report ========================

Tracing not selected.

============= CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ============

No profile discrepancies detected.

================ Conformance Summary Report =================

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/07/93     Time:  15:05:43

Name of CGM under test: i:\9318\c208.cgm
Encoding               : Binary

Pictures Examined     : All
Elements Examined     : All
Bytes    Examined     : All

BEGIN METAFILE string : "text.cgm"
METAFILE DESCRIPTION  : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 178; string contains: "Picture 1"

Conformance Summary   :  This file conforms to the CGM specification.
```

```
                    This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

          1 Pictures Tested
         67 Elements Tested
        896 Octets Tested

              ================================
              |    No Errors Were Detected    |
              ================================

================ End of Conformance Report ==================
```

12.5.2 validcgm Log

```
Analysis for file c208.cgm using table table
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(14.1, 0)        (3, 6, 2)      Clip Indicator OFF
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 1 time
(1, 13) occurred 1 time
(2, 2) occurred 1 time
(2, 6) occurred 1 time
(2, 7) occurred 1 time
(3, 2) occurred 1 time
(3, 6) occurred 1 time
(3, 6) occurred illegally 1 time
```

(4, 4) occurred 17 times
(5, 10) occurred 3 times
(5, 12) occurred 3 times
(5, 13) occurred 3 times
(5, 14) occurred 2 times
(5, 15) occurred 4 times
(5, 16) occurred 5 times
(5, 17) occurred 4 times
(5, 18) occurred 4 times
(5, 34) occurred 1 time

12.5.3 Output Harvard Graphics

TEXT 12
BOLD .15

SPACING 2

EXPANSION FACTOR 1.5

TEXT COLOR RED

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12.5.4 Output cgm2draw/IslandDraw